

89. (amended) The expression vector of Claim 88, wherein said nucleic acid molecule is operably linked to regulatory sequences to control expression of said nucleic acid molecule.

91. (amended) A host cell transformed with the nucleic acid molecule of Claim 9.

95. (amended) The host cell of Claim 91, wherein said bacterium is *E. coli* or *Streptomyces*.

96. (amended) A cosmid comprising a nucleic acid molecule from the calicheamicin biosynthetic gene cluster from *Micromonospora echinospora*, wherein said nucleic acid molecule comprises SEQ ID No. 35.

98. (amended) A method of expressing a protein comprising the steps of transfecting a host cell with the expression vector of Claim 88 and incubating said cell for a length of time and under conditions sufficient for expression of said protein wherein said protein comprises SEQ ID No. 36.

99. (amended) The method of Claim 98, wherein said host cell is a bacterial, yeast, insect, plant, fungal, or mammalian cell.

145. (amended) An isolated nucleic acid molecule coding for an amino acid sequence comprising SEQ ID No. 36.

Please add the following new claims:

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--150. (new) The isolated nucleic acid molecule of Claim 9, wherein said nucleic acid molecule comprises the entire calicheamicin gene cluster from *Micromonospora echinospora*.

151. (new) The cosmid of Claim 96, wherein said cosmid comprises the entire calicheamicin gene cluster from *Micromonospora echinospora*.

152. (new) An isolated nucleic acid that hybridizes to a corresponding portion of the isolated nucleic acid of Claim 9 under high stringency conditions, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

153. (new) An isolated nucleic acid that has at least 90% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

154. (new) An isolated nucleic acid that has at least 80% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the corresponding portion is no more than 15% larger or smaller than SEQ ID No. 35.

155. (new) An isolated nucleic acid that has at least 70% sequence identity to a corresponding portion of the isolated nucleic acid of Claim 9, where the